Claims

1. Method for producing a starch mixture of grainy to powdery materials containing starch, a first component, containing at least one starch, being mixed in an extruder with a second component containing at least water, characterized in that

(a) the total water content of the mixture, containing the first component and the second component, is less than 40% by weight and, in particular, ranges from 15% to 20%,

(b) the temperature during the mixing and cooking processes in the extruder is between 120° and 250°C and preferably ranges from 160° to 220°C,

(c) the extrudate, obtained in the extruder, is dried and

(d) the dried extrudate is ground and screened.

2. The method of claim 1, characterized in that the maximum screen size during screening is about 4 mm and, in particular, ranges from 1 mm to 3 mm.

3. The method of claims 1 or 2, characterized in that the initial water content of the first component is about 10 to 15% by weight and that additional water is added to

the extruder during the mixing process.

4. The method of one of the claims 1 to 3, characterized in that acid and/or alkali is added during the mixing to the mixture containing starch and water.

5. The method of one of the claims 1 to 4, characterized in that the component, containing the starch, is flour and, in particular, rye flour.

6. The method of one of the claims 1 to 5, characterized in that the component, containing the starch, is conventional, commercial rye flour with an initial water content of about 10 to 15% by weight.

7. The method of one of the claims 1 to 6, characterized in that the mixing process takes place in a twin-screw extruder, rotating in the same direction at 200 to 1200 rpm.

8. The method of one of the preceding claims, characterized in that the specific mechanical energy introduced into the product is about 120 to 220 Wh/kg.

9. The starch-containing, grainy to powdery mixture of materials, which was produced by the method of one of the claims 1 to 8.

10. The use of the starch-containing mixture of materials of claim 9 as a binder, characterized in that the starch-containing mixture of materials is stirred into water for this purpose.

11. The use of claim 10, characterized in that the starch-containing mixture of materials is stirred into water having a temperature of 20° to 70°C and preferably of 30° to 60°C.

12. The use of claims 10 or 11, characterized in that the starch-containing mixture of materials is used as a binder for cellulose fibers, especially for producing paper or cardboard.